

ASSIGNMENT 1

Textbook Assignment: "Communications," chapter 1, pages 1-1 through 1-25.

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| <p>1-1. Electrical energy used by electronic communication travels at what rate?</p> <ol style="list-style-type: none">1. The speed of light2. The speed of sound3. Speed proportional to transmitter power4. Speed proportional to receiver sensitivity <p>1-2. What is/are the major disadvantage(s) of radiotelegraph?</p> <ol style="list-style-type: none">1. Slow speed only2. Experienced sender only3. Experienced receiver only4. Slow speed and the need for experienced operators at both ends <p>1-3. What frequency bands were originally used for radiotelegraphy?</p> <ol style="list-style-type: none">1. ELF and EHF2. VLF and LF3. MF and HF4. VHF and UHF <p>1-4. What frequency bands have the prominent feature of ionospheric reflection?</p> <ol style="list-style-type: none">1. ELF and EHF2. VLF and LF3. MF and HF4. VHF and UHF <p>1-5. VHF and UHF bands are known as what type of transmission band?</p> <ol style="list-style-type: none">1. Over-the-horizon2. Fleet broadcast3. Line-of-sight4. Tactical | <p>1-6. Which of the following functions is NOT performed by the IRC panel?</p> <ol style="list-style-type: none">1. Controls VHF radio modes and functions2. Controls UHF radio modes and functions3. Controls HF radio modes and functions4. Displays IFPM status of communication subsystems and components <p>1-7. The BITE indicator on the IRC panel will illuminate when a fault is detected in the</p> <ol style="list-style-type: none">1. IRC panel2. UHF1 or UHF2 only3. HF, DTS, or SLU only4. UHF1, UHF2, HF, DTS, or SLU <p>1-8. The LS-601/AI crew control panels are all identical and operate the same at each station.</p> <ol style="list-style-type: none">1. True2. False <p>1-9. Which of the following control(s) is/are located on the LS-602/AI control panel?</p> <ol style="list-style-type: none">1. Radio select only2. ICS select only3. Volume control only4. Radio select, ICS select, and volume control <p>1-10. What is the interrogation rate for each crew ICS panel and IRC by the change-of-status request from the SLU?</p> <ol style="list-style-type: none">1. 25 microseconds2. 25 milliseconds3. 10 microseconds4. 10 milliseconds |
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- 1-11. What will the S indicator illumination on the crew control panels indicate for a particular radio system?
1. System off
 2. System available
 3. System selected only
 4. System secure mode selected
- 1-12. In the ICCG, which of the following components does NOT have identical binary coding and decoding circuits?
1. SLU
 2. IRC
 3. LS-601/AI
 4. LS-602/AI
- 1-13. What binary number is recognized by the SLU as the pilot crew ICS panel in bits 2 through 6 of the 36-bit format?
1. 01110
 2. 01010
 3. 10101
 4. 10110
- 1-14. What is bit 36 of the 36-bit format used for by the ICCG?
1. Parity bit
 2. Entry bit
 3. Tag bit
 4. Flag bit
- 1-15. In the Manchester word format, what is the clock pulse rate?
1. 210 MHz
 2. 210 kHz
 3. 120 MHz
 4. 120 kHz
- 1-16. What component generates the roll call for the communication system?
1. IRC
 2. SLU
 3. GPDC
 4. LS-601/AI
- 1-17. The exhale word is a status word between the SLU and which component(s)?
1. IRC only
 2. LS-601/AI only
 3. GPDC only
 4. IRC, LS-601/AI, and GPDC
- 1-18. Which components in the ICCG respond to more than one roll call address?
1. IRC and SLU
 2. IRC and LS-601/AI
 3. SLU and LS-601/AI
 4. SLU and LS-602/AI
- 1-19. Which ICCG component recognizes and processes the first part of roll call 1 through the digital control section, line receiver, and inhale word register?
1. LS-601/AI
 2. LS-602/AI
 3. IRC
 4. SLU
- 1-20. Which ICCG component generates the second part of roll call 1?
1. LS-601/AI
 2. LS-602/AI
 3. IRC
 4. SLU
- 1-21. Where are the data and clock pulses separated in the SLU?
1. Digital control section
 2. Line receiver
 3. Input register
 4. Inhale word register
- 1-22. What circuit in the SLU is used to shift data from one buffer to another once the data is shifted to the input register in the SLU?
1. Valid word register
 2. Inhale word register
 3. Master clock
 4. Derived clock

- 1-23. What happens in the SLU if the input word is invalid three times?
1. The control register sets the BITE indicator on the SLU
 2. The status register sets the BITE indicator on the component that sent the word
 3. The status register sets the BITE indicator on the SLU
 4. The control register sets the BITE indicator on the component that sent the word
- 1-24. When does the IRC/SLU roll call exchange end?
1. Last part of roll call 8
 2. First part of roll call 8
 3. First part of roll call 12
 4. Last part of roll call 12
- 1-25. Which CREW ICS panel processes the first part of roll call 9?
1. TACCO
 2. SENSO
 3. Pilot
 4. Copilot
- 1-26. What is the frequency range of the AN/ARC-197 VHF transceiver?
1. 116.000 to 151.975 Mhz
 2. 108.000 to 151.975 Mhz
 3. 116.000 to 151.975 kHz
 4. 108.000 to 151.975 kHz
- 1-27. What are the microphone and headphone jacks on the RT-1397/ARC-197 transceiver NOT used for?
1. Maintenance
 2. Normal operation
 3. Emergency reception
 4. Emergency transmission
- 1-28. What increments are the frequencies selectable on the AN/ARC-197?
1. Every 1 kKz
 2. Every 1 MHz
 3. Every 25 kHz
 4. Every 25 MHz
- 1-29. What component reduces the crosstalk between the VHF and UHF systems?
1. VHF antenna
 2. UHF antenna
 3. UHF and VHF antenna coax routing
 4. VHF bandpas filter
- 1-30. The VHF transmitter uses a total of how many stages of amplification to increase the output to 20 watts?
1. One
 2. Two
 3. Three
 4. Five
- 1-31. Which of the following types of operation(s) is/are provided by the AN/ARC-187 UHF communication system?
1. AM only
 2. FM only
 3. FSK only
 4. AM, FM, and FSK
- 1-32. The MEMORY read display only displays the frequency that has been selected by the manual selector switches.
1. True
 2. False
- 1-33. The FAULT status indicator on the C-11950/ARC-187 indicates which of the following types of fault(s)?
1. Receiver transmitter only
 2. Interface only
 3. Control box only
 4. Receiver transmitter, interface, and control box
- 1-34. What mode of frequency selection on the C-11950/ARC-187 control box disables the guard receiver?
1. SONOBUOY COMMAND
 2. MANUAL
 3. PRESET
 4. GUARD

- 1-35. UHF-1 does NOT provide what type of operation?
1. ADF navigation
 2. Cipher voice
 3. Link 11 data
 4. Cipher voice guard
- 1-36. UHF-2 does NOT provide what type of operation?
1. ADF navigation
 2. Cipher voice
 3. Link 11 data
 4. Cipher voice guard
- 1-37. How many channels are available for automatic tuning in the UHF transceivers?
1. 8750
 2. 8500
 3. 7500
 4. 7000
- 1-38. What system is used as a backup transmitter for the CASS system?
1. UHF-1
 2. UHF-2
 3. UHF-3
 4. UHF-4
- 1-39. Which of the following components interface(s) the UHF-1 radio set with the voice and data sources?
1. COMM switching matrix
 2. UHF-1 set control only
 3. UHF-1 voice selector only
 4. UHF-1 set control and voice selector
- 1-40. What component activates the SATCOM relay panel to the SATCOM mode of operation?
1. UHF-1 RT
 2. UHF-2RT
 3. UHF-1 control box
 4. UHF-2 control box
- 1-41. What high-frequency security unit provides cipher voice communication with the AN/ARC-161 HF radio system?
1. TSEC/KY-75
 2. TSEC/KY-58
 3. TSEC/KY-28
 4. TSEC/KW-7
- 1-42. How many channels does the AN/ARC-161 HF radio system tune to automatically?
1. 820,000
 2. 280,000
 3. 180,000
 4. 128,000
- 1-43. Coupling might NOT be possible on the HF-1 antenna in which of the following frequency ranges?
1. 2.0000 to 4.8000 MHz
 2. 6.0000 to 12.0000 MHz
 3. 12.0000 to 13.2000 MHz
 4. 13.2000 to 19.2000 MHz
- 1-44. What component of the AN/ARC-161 HP radio system includes the lightening arrester?
1. RT-1000/ARC-161
 2. AM-6561/ARC-161
 3. C-9245/ARC-161
 4. CU-2070/ARC
- 1-45. Illumination of the CPLR READY indicator on the C-9245/ARC-161 indicates the associated coupler has passed the self-test routine.
1. True
 2. False
- 1-46. What indicator on the C-9245/ARC-161 will illuminate anytime the radio set fails self-test?
1. CPLR FAULT
 2. CONT FAULT
 3. SYS FAULT
 4. RT FAULT

- 1-47. When does the XMTR OFF indicator illuminate on the C-9245/ARC-161?
1. First 5 minutes of initial power up
 2. Operating frequency change less than 1 Mhz
 3. System fault that affects the transmitter
 4. BLANKER ON deselected
- 1-48. What switch on the C-9245/ARC-161 sets the transmitter for high-power output?
1. COND
 2. RESET
 3. SQ OFF
 4. BLANKER ON
- 1-49. What switch on the C-9245/ARC-161 permits AHE transmission and reception?
1. AME
 2. COND
 3. RESET
 4. MODE
- 1-50. What component of the AN/ARC-161 HP radio system provides Impedance matching between the antenna and the receiver transmitter?
1. CU-2070/ARC
 2. AM-6561/ARC-161
 3. RT-1100/ARC-161
 4. C-9245/ARC-161
- 1-51. What component of the AN/ARC-161 HF radio system provides a spark gap to protect the radio if lightning strikes the long-wire antenna?
1. CU-2070/ARC
 2. AM-6561/ARC-161
 3. RT-1100/ARC-161
 4. C-9245/ARC-161
- 1-52. What type of mount are the top mounts for the HF long-wire antennas?
1. Fixed
 2. Breakaway
 3. Feed-through
 4. Movable
- 1-53. What switch on the TSEC/KY-75 RCU selects the storage area when the key Is loaded in the KY-75?
1. SIG CLR
 2. PWR/FILL
 3. KY-75 RCU
 4. ALARM
- 1-54. What component of the AN/ARC-161 HF radio system has a mic/headset connection for emergency and maintenance operation of voice and keying signals?
1. CU-2070/ARC
 2. RT-1100/ARC-161
 3. AM-6561/ARC-161
 4. C-9245/ARC-161
- 1-55. Which of the following radio systems may be used to transmit and receive data link?
1. HF-1, UHF-1, and UHF-2
 2. HF-2, UHF-1, and UHF-2
 3. HF-1, HF-2, and UHF-1
 4. HF-1, HF-2, and UHF-2
- 1-56. What component of the data link system converts serial digital data into audio tones for transmission over a voice radio?
1. PP-6140/ACQ-5
 2. C-7790/ACQ-5
 3. CV-2528/ACQ-5
 4. RT-1254/ACQ-5
- 1-57. What unit converts 30-bit parallel binary computer data words Into 26-bit serial data transmission language?
1. Communications switching matrix
 2. Communications secure switching matrix
 3. Communications interface No. 1
 4. Communications interface No. 2
- 1-58. Who has the primary responsibility for the hardware setup of the data link system?
1. COTAC
 2. TACCO
 3. NAV/COMM
 4. SENSOR 3

- 1-59. What are the fixed-length blocks that the data link system formats tactical information into called?
1. Frames
 2. Sections
 3. Sectors
 4. Rings

- 1-65. Which of the following selections are made on the DTS when this system is acting as the DNCU?
1. PICKET and CONTROL
 2. PICKET and ROLL CALL
 3. DNCU and CONTROL
 4. CONTROL and ROLL CALL

IN ANSWERING QUESTIONS 1-60 THROUGH 1-63, SELECT FROM COLUMN B THE DATA LINK DEFINITION THAT DEFINES THE DATA LINK TERM IN COLUMN A.

	<u>A. DATA LINK TERMS</u>	<u>B. DATA LINK DEFINITIONS</u>
1-60.	Participating unit	1. Any station that is not the DNCU
1-61.	Data net control unit	2. Any ship, or shore station active in the data link net
1-62.	Picket unit	3. Any unit that has overall control over the link net
1-63.	Data link reference position	4. Latitude and longitude reference position for all data transmitted on the net

- 1-66. What selection is made on the DTS when a surface ship or ASWOC is the DNCU?

1. CONTROL
2. ROLL CALL
3. PICKET
4. DNCU

- 1-67. How long will the LONG BROADCAST function transmit when selected?

1. 5 minutes
2. Continuously
3. Through a single set of data
4. Through all data twice

- 1-68. How long will the SHORT BROADCAST function transmit when selected?

1. 5 minutes
2. Continuously
3. Through a single set of data
4. Through all data twice

- 1-69. Pickets use the broadcast functions during roll call.

1. True
2. False

- 1-70. When radio silence is selected, the DTS will NOT receive data.

1. True
2. False

- 1-71. Which of the following radio systems may be used to transmit and receive TTY?

1. HF-1, HF-2, and UHF-2
2. HF-1, HF-2, and UHF-1
3. HF-1, HF-2, and VHF
4. HF-1, UHF-1, and VHF

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- 1-64. What is the data link system's normal mode of operation?

1. LONG BROADCAST
2. SHORT BROADCAST
3. Roll call
4. Picket

1-72. What security unit provides encryption and decryption for all teletype data in the aircraft?

1. TSEC/KW-7
2. TSEC/KY-7
3. TSEC/KW-28
4. TSEC/KY-28

1-73. What unit provides an Interface between the TTY system and the radios?

1. Teleprinter secure interface
2. TTY signal data converter
3. Communications interface No. 1
4. Communications interface No. 2

1-74. What unit connects the TTY system with the central computer?

1. Teleprinter secure Interface
2. TTY signal data converter
3. Communications interface No. 1
4. Communications interface No. 2

1-75. What selection is made on the HSP to produce hard copy of computer data?

1. CMPTR
2. HRD CPY
3. CONST
4. EDIT